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|---|
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| ART UNIT | PAPER NUMBER |
|---|---|
| 1732 | 16 |

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Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/700,372 | HATJASALO ET AL. | |
| | Examiner | Art Unit | |
| | Stefan Staicovici | 1732 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *29 July 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1,3-10,13,15,17-19,21 and 22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 3-10, 13, 15, 17-19 and 21-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 November 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 29, 2003 (Paper No. 14) has been entered.

### *Response to Amendment*

2. Applicant's amendment filed July 29, 2003 (Paper No. 15) has been entered. Claims 1, 7-8 and 22 have been amended. Claims 2, 11-12, 14 and 20 have been canceled. No new claims have been added.

Claims 1, 3-10, 13, 15, 17-19 and 21-22 are pending in the instant application.

### *Claim Objections*

3. Claim 5 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim (claim 1). Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

### *Claim Rejections - 35 USC § 112*

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 7 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 recites the limitation "the one or more treatment blocks" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 22 recites the limitation "the one or more treatment block" in line 4. There is insufficient antecedent basis for this limitation in the claim.

### *Claim Rejections - 35 USC § 103*

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1, 3-5, 7, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 98/25747 in view of Panandiker *et al.* (US Patent No. 4,055,550) and in further view of Goodridge (US Patent No. 3,607,998).

WO 98/25747 teaches the basic claimed process of forming a thin-walled article including, electrostatically spraying charged particles (electrically charged state) of an elastomeric composition using a single spraying unity (see Figure 2) into a chamber containing a rigid shaped former (mold), forming a coating on said former, consolidating said coating (finished product) and stripping the resulting molded article from the shaped former (see page 2, lines 14-21).

Regarding claim 1, WO 98/25747 do not teach heating and mixing the spraying material prior to its spraying. Panandiker *et al.* ('550) teach a polyurethane based composition (col. 3, line 19) used in an electrostatic spraying process (col. 1, line 18) including, providing a first component (polyol and blocking agent) and a second component (polyisocyanate), heating each component and then mixing said components under heat in order to provide a composition to be used in an electrostatic spraying process (see col. 4, line 20 through col. 5, line 15 and Example 1). Therefore, it would have been obvious for one of ordinary skill in the art to have heated a first component and a second component and then mixed said first and second components to form an electrostatic spraying composition as taught by Panandiker *et al.* ('550) in the process of WO 98/25747, because Panandiker *et al.* ('550) specifically teach a process of preparing a polyurethane based electrostatic composition which is used in the electrostatic process of WO 98/25747. It should be noted that WO 98/25747 teaches polyurethane as a material used in the electrostatic process (see page 4).

Further regarding claim 1, WO 98/25747 in view of Panandiker *et al.* ('550) do not teach a mold (former) that is not grounded. Goodridge ('998) teaches an electrostatic molding process

including, electrostatically spraying charged particles (electrically charged state) of a plastic composition into a chamber containing a rigid shaped former (mold) connected to a source of high voltage, forming a coating on said former, consolidating said coating (finished product) and stripping the resulting molded article from the shaped former (see Abstract). Further, Goodridge ('998) specifically teaches that said mold (former) may be either connected to a source of high voltage or it may be grounded (see col. 6, lines 1-10), hence teaching that a grounded mold and a mold connected to a source of high voltage are equivalent alternatives in an electrostatic process. Therefore, it would have been obvious for one of ordinary skill in the art to have connected the mold to a source of high voltage as taught by Goodridge ('998) in the process of WO 98/25747 in view of Panandiker *et al.* ('550) because, Goodridge ('998) specifically teaches that a grounded mold and a mold connected to a source of high voltage are equivalent alternatives in an electrostatic process and also due to such known factors as safety requirements, cost of equipment, cost of maintenance, etc.

In regard to claim 3, Goodridge ('998) teaches using a mold release agent (col. 6, lines 64-65) during a molding process. Therefore, it would have been obvious for one of ordinary skill in the art to have provided a mold release agent as taught by Goodridge ('998) in the process of WO 98/25747 in view of Panandiker *et al.* ('550) because, Goodridge ('998) specifically teaches that a mold agent allows demolding as required by the process of WO 98/25747 in view of Panandiker *et al.* ('550) and also because, all references teach similar processes and materials. It should be noted that by definition a release agent causes a reduction in the surface tension resulting in demolding of the molded article from said surface.

Specifically regarding claims 4 and 13, WO 98/25747 teaches molding a glove or a condom (see page 3, lines 1-3).

Regarding claims 5 and 15, Panandiker *et al.* ('550) teach a polyurethane based composition (col. 3, line 19) used in an electrostatic spraying process (col. 1, line 18) including, providing a first component (polyol and blocking agent) and a second component (polyisocyanate), heating each component and then mixing said components under heat in order to provide a composition to be used in an electrostatic spraying process (see col. 4, line 20 through col. 5, line 15 and Example 1). Therefore, it would have been obvious for one of ordinary skill in the art to have heated a first component and a second component and then mixed said first and second components to form an electrostatic spraying composition as taught by Panandiker *et al.* ('550) in the process of WO 98/25747 in view of Goodridge ('998), because Panandiker *et al.* ('550) specifically teach a process of preparing a polyurethane based electrostatic composition which is used in the electrostatic process of WO 98/25747 in view of Goodridge ('998). It should be noted that WO 98/25747 teaches polyurethane as a material used in the electrostatic process (see page 4).

In regard to claim 7, WO 98/25747 teaches varying the size of the electrostatic charge, the solids composition (hence the viscosity) and the position and speed of the mold as it travels along the spraying units in order to vary the thickness of the resulting molded article (see pages 5-6).

8. Claims 6-7 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 98/25747 in view of Panandiker *et al.* (US Patent No. 4,055,550) and in further view of Goodridge (US Patent No. 3,607,998) and Itoh (US Patent No. 3,976,031).

WO 98/25747 in view of Panandiker *et al.* ('550) and in further view of Goodridge ('998) teaches the basic claimed process as describe above.

Regarding claims 6-7 and 17-19, although Goodridge ('998) teaches a mold connected to a source of high voltage, WO 98/25747 in view of Panandiker *et al.* ('550) and in further view of Goodridge ('998) do not teach controlling a mold having two or more blocks set at different voltage levels. Itoh ('031) teaches an electrostatic coating process including, providing a molding surface (10) and a discharge electrode (2) set at different voltage levels forming three distinct regions (A, B and C) (see col. 7, lines 11-32 and 56-60) that results in a molded (coated) article having three distinct regions of a different thickness (see Figure 4b). It is submitted that the voltage generated between said mold (10) and said discharge electrode (2) is the *difference between the electric potential* (emphasis added) of the said mold (10) (*i.e.*, zero) and said discharge electrode (2) (see Figure 4b). As such, although said mold (2) has an electrical potential of zero Volts, the voltage of said mold (2) is set at different voltage levels forming three distinct regions (A, B and C) because the voltage is the difference between the electric potential of said mold (10) and said discharge electrode (2). Further, it should be noted that Goodridge ('998) specifically teaches that in an electrostatic molding process, a mold (former) may be either connected to a source of high voltage or it may be grounded (see col. 6, lines 1-10), hence teaching that a grounded mold and a mold connected to a source of high voltage are equivalent

alternatives. Therefore, it would have been obvious for one of ordinary skill in the art to have connected the mold to a source of high voltage as taught by Goodridge ('998) such as to obtain said mold set at different *voltage* (emphasis added) levels as taught by Itoh ('031) in the process of WO 98/25747 in view of Panandiker *et al.* ('550) because, Itoh ('031) specifically teaches that by controlling the voltage regions improved control of the molded thickness results and also, the molded thickness can be varied from area to area on the same article (see Figure 4b), hence providing for improved versatility and process control of the electrostatic coating (molding) process and also because, Goodridge ('998) specifically teaches that said mold (former) may be either connected to a source of high voltage or it may be grounded (see col. 6, lines 1-10), hence teaching that a grounded mold and a mold connected to a source of high voltage are equivalent alternatives in an electrostatic process and, because all references teach similar processes and materials. Further, it should be noted that whether the mold or the discharge electrode (*i.e.*, atomizer) is set at different electric potential levels does not appear to provide unexpected results because it is the voltage that is important in an electrostatic molding process and as shown above, the voltage is defined as the *difference* (emphasis added) in electric potential between the mold and the discharge electrode (atomizer).

9. Claims 8-9 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 98/25747 in view of Goodridge (US Patent No. 3,607,998).

WO 98/25747 teaches the basic claimed apparatus including, a reservoir of polymeric-based material (16), a pressurizing unit (20) to pressurize said polymeric-based material, a three-dimensional mold (24), a heating unit (26) and an atomizer and electric charger (14) that

atomizes and electrically charges particles of polymeric-based material (see pages 8-9 and Figures 1-2). Further, WO 98/25747 teaches that the spraying rate and the traveling rate of the mold are controllable, hence it is submitted that the apparatus of WO 98/25747 includes a control unit to adjust said parameters.

Regarding claim 8, WO 98/25747 does not teach a mold (former) that is not grounded. Goodridge ('998) teaches an electrostatic molding apparatus and process including, electrostatically spraying charged particles (electrically charged state) of a plastic composition into a chamber containing a rigid shaped former (mold) connected to a source of high voltage, forming a coating on said former, consolidating said coating (finished product) and stripping the resulting molded article from the shaped former (see Abstract). Further, Goodridge ('998) specifically teaches that said mold (former) may be either connected to a source of high voltage or it may be grounded (see col. 6, lines 1-10), hence teaching that a grounded mold and a mold connected to a source of high voltage are equivalent alternatives in an electrostatic process. Therefore, it would have been obvious for one of ordinary skill in the art to have connected the mold to a source of high voltage as taught by Goodridge ('998) in the apparatus of WO 98/25747 because, Goodridge ('998) specifically teaches that a grounded mold and an electrically connected mold are equivalent alternatives in an electrostatic process and also due to such known factors as safety requirements, cost of equipment, cost of maintenance, etc.

In regard to claim 9, WO 98/25747 teaches a heating unit (26) (see pages 8-9 and Figures 1-2).

Specifically regarding claim 22, WO 98/25747 teaches varying the size of the electrostatic charge, the solids composition (hence the viscosity) and the position and speed of the mold (hence the volume flow) as it travels along the spraying units in order to vary the thickness of the resulting molded article (see pages 5-6).

10. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 98/25747 in view of Goodridge (US Patent No. 3,607,998) and in further view of Itoh (US Patent No. 3,976,031).

WO 98/25747 in view of Goodridge ('998) teaches the basic claimed apparatus as describe above.

Regarding claim 10, although Goodridge ('998) teaches a mold connected to a source of high voltage, WO 98/25747 in view of Goodridge ('998) do not teach controlling a mold having two or more blocks set at different voltage levels. Itoh ('031) teaches an electrostatic coating apparatus including, providing a molding surface (10) and a discharge electrode (2) set at different voltage levels forming three distinct regions (A, B and C) (see col. 7, lines 11-32 and 56-60) that results in a molded (coated) article having three distinct regions of a different thickness (see Figure 4b). It is submitted that the voltage generated between said mold (10) and said discharge electrode (2) is the *difference between the electric potential* (emphasis added) of the said mold (10) (*i.e.*, zero) and said discharge electrode (2) (see Figure 4b). As such, although said mold (2) has an electrical potential of zero Volts, the voltage of said mold (2) is set at different voltage levels forming three distinct regions (A, B and C) because the voltage is the difference between the electric potential of said mold (10) and said discharge electrode (2).

Further, it should be noted that Goodridge ('998) specifically teaches that in an electrostatic molding process, a mold (former) may be either connected to a source of high voltage or it may be grounded (see col. 6, lines 1-10), hence teaching that a grounded mold and a mold connected to a source of high voltage are equivalent alternatives. Therefore, it would have been obvious for one of ordinary skill in the art to have connected the mold to a source of high voltage as taught by Goodridge ('998) such as to obtain said mold set at different *voltage* (emphasis added) levels as taught by Itoh ('031) in the apparatus of WO 98/25747 because, Itoh ('031) specifically teaches that by controlling the voltage regions improved control of the molded thickness results and also, the molded thickness can be varied from area to area on the same article (see Figure 4b), hence providing for improved versatility and process control of the electrostatic coating (molding) process and also because, Goodridge ('998) specifically teaches that said mold (former) may be either connected to a source of high voltage or it may be grounded (see col. 6, lines 1-10), hence teaching that a grounded mold and a mold connected to a source of high voltage are equivalent alternatives in an electrostatic process and, because all references teach similar processes and materials. Further, it should be noted that whether the mold or the discharge electrode (*i.e.*, atomizer) is set at different electric potential levels does not appear to provide unexpected results because it is the voltage that is important in an electrostatic molding process and as shown above, the voltage is defined as the *difference* (emphasis added) in electric potential between the mold and the discharge electrode (atomizer).

11. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 98/25747 in view of Goodridge (US Patent No. 3,607,998) and in further view of Panandiker *et al.* (US Patent No. 4,055,550).

WO 98/25747 in view of Goodridge ('998) teaches the basic claimed apparatus as described above.

Regarding claim 21, WO 98/25747 in view of Goodridge ('998) does not teach heating and mixing the spraying material prior to its spraying. Panandiker *et al.* ('550) teach a polyurethane based composition (col. 3, line 19) used in an electrostatic spraying process (col. 1, line 18) including, providing a first component (polyol and blocking agent) and a second component (polyisocyanate), heating each component and then mixing said components under heat in order to provide a composition to be used in an electrostatic spraying process (see col. 4, line 20 through col. 5, line 15 and Example 1). Further, it should be noted that WO 98/25747 also teaches a polyurethane-based composition (see page 4). Therefore, it would have been obvious for one of ordinary skill in the art to have heated a first component and a second component and then mixed said first and second components to form an electrostatic spraying composition as taught by Panandiker *et al.* ('550) in the apparatus of WO 98/25747 in view of Goodridge ('998), because Panandiker *et al.* ('550) specifically teach an apparatus and process for preparing a polyurethane based electrostatic composition, said polyurethane-based composition being used in the electrostatic apparatus and process of WO 98/25747.

***Response to Arguments***

12. Applicants' arguments filed July 29, 2003 (Paper No. 15) have been considered, but are moot in view of the new ground(s) of rejection.

***Conclusion***

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stefan Staicovici, Ph.D. whose telephone number is (703) 305-0396. The examiner can normally be reached on Monday-Friday 8:00 AM to 5:30 PM and alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael P. Colaianni, can be reached at (703) 305-5493. The fax phone number for this Group is (703) 305-7718.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.

Stefan Staicovici

STEFAN STAICOVICI, PHD
PRIMARY EXAMINER

9/6/03

AU 1732

September 6, 2003